

BRAZILIAN SUGARCANE INDUSTRY ASSOCIATION
UNIÃO DA INDÚSTRIA DE CANA-DE-AÇÚCAR



Brazilian Sugarcane Ethanol

Workshop on Transportation Energy Demand and Fuel Infrastructure Requirements

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① Introduction

- *Brazil's diversified sugarcane industry*

② Sugarcane & U.S. Ethanol Market

- *Meeting the RFS and the LCFS*

③ Questions



①

Brazil's Sugarcane Industry

Food, Fuel & Electricity

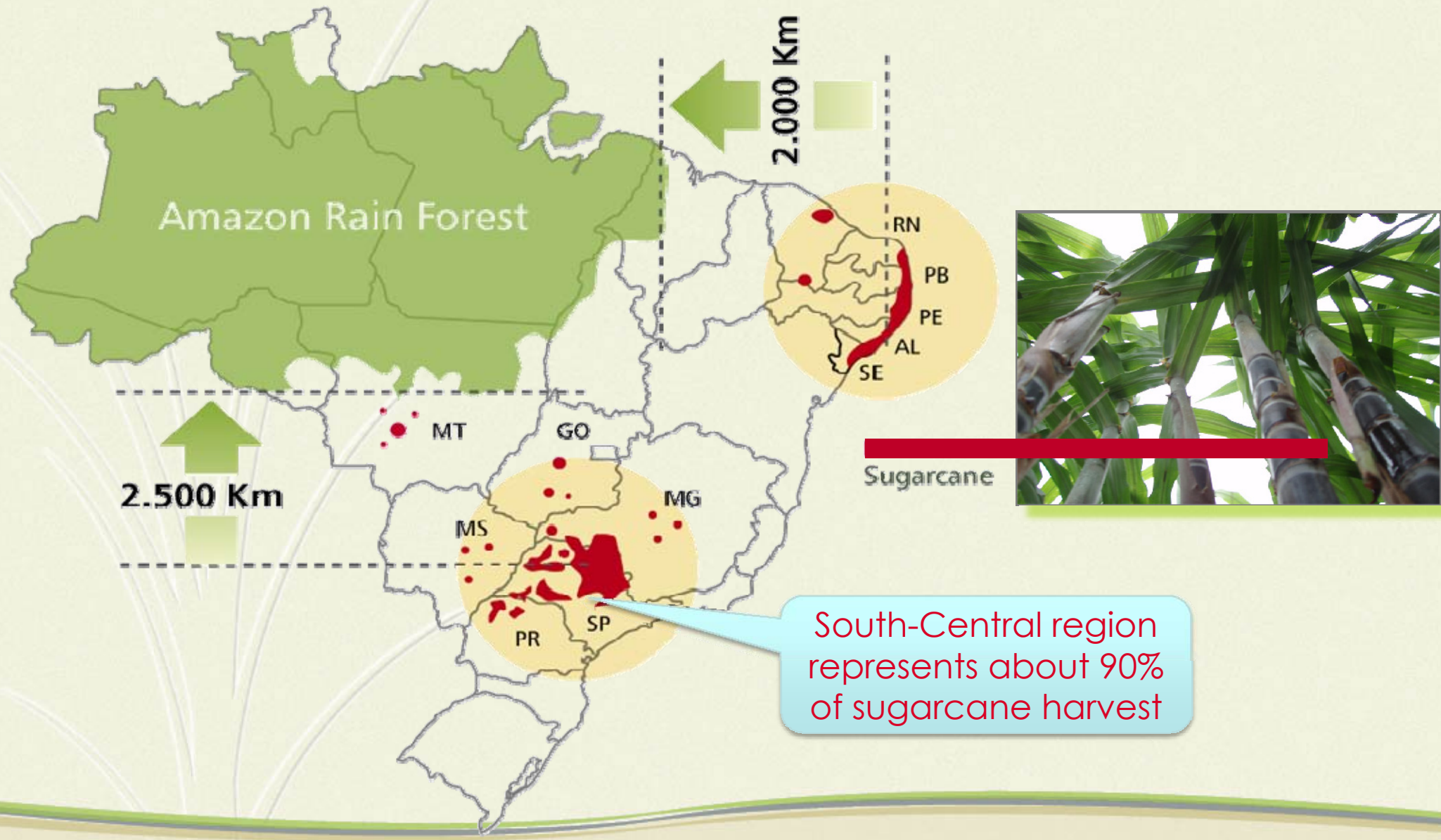
- UNICA is the **leading sugarcane industry association**, representing +100 producers and mills in Brazil
- Responsible for **60% of all ethanol and sugar production** in Brazil
- Emerging as a **leader in the generation of bioelectricity** already meeting 3% (and soon 10%) of Brazil's electricity demand
- International presence, now in Washington & Brussels, to engage in **constructive dialogue**



CURRENT PRODUCTION



1% OF BRAZIL'S ARABLE LAND



	2008/09e	2015/16	2020/21
Sugarcane production (million tons)	562	829	1,038
Sugar (million tons)	31.2	41.3	45.0
Domestic Market and Stocks	10.2	11.4	12.1
Export	21.0	29.9	32.9
Ethanol (billion gallons)	7.1	12.4	17.2
Domestic Market and Stocks	5.8	9.2	13.1
Export	1.3	3.2	4.1
Bioelectricity (MW average)	1,800	8,158	13,158
Share of electricity demand (%)	3%	11%	14%

Note: e = estimated data; potential generation of surplus electricity has been calculated based on the utilization of 75% of the available bagasse and 50% of the available straw, and considering the sugarcane production during most recent harvest, Sources UNICA, Copersucar, Koblitz and Cogen.

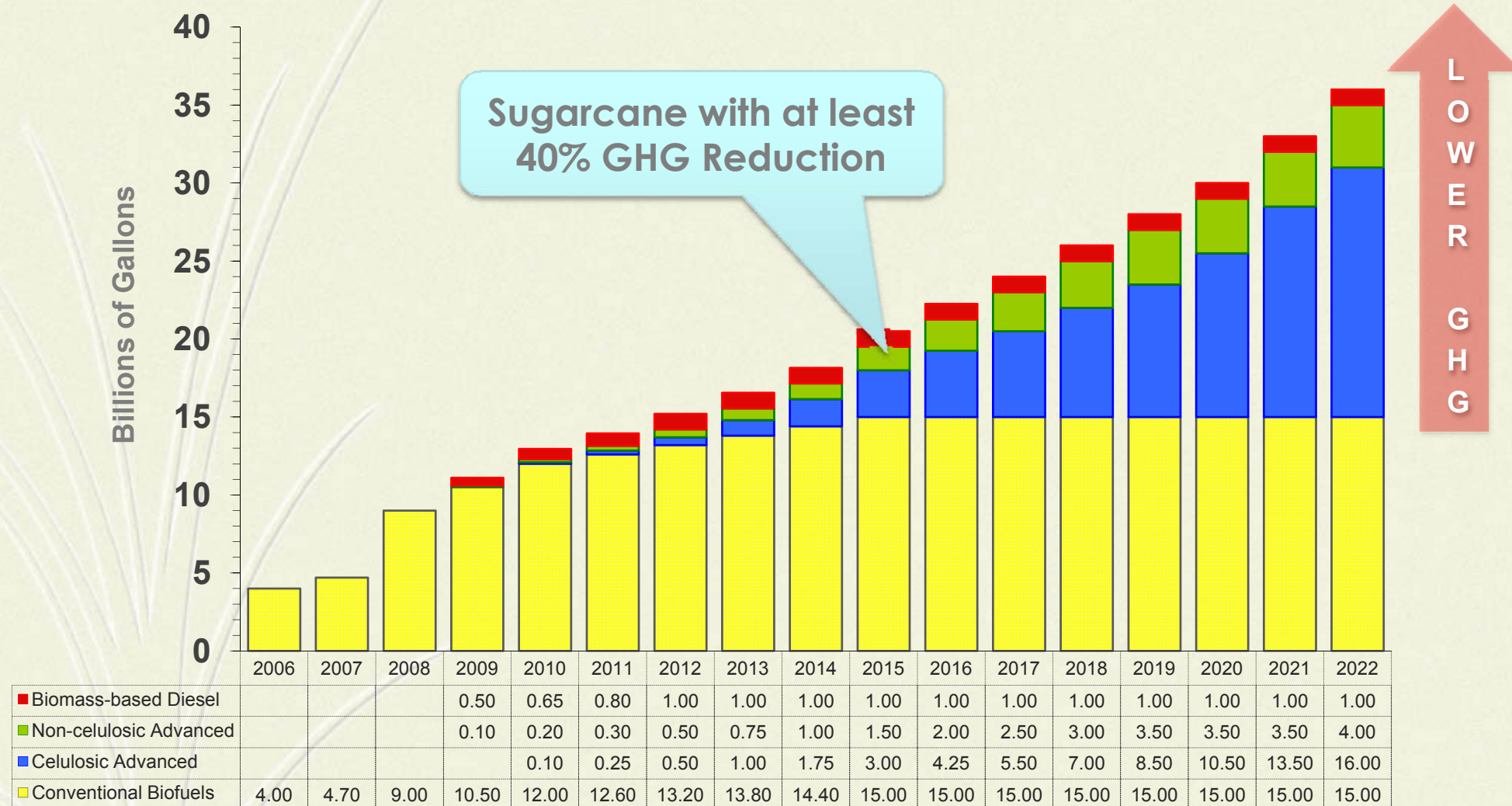
The background of the slide is a close-up photograph of several sugarcane stalks. The stalks are green and have a distinct ribbed texture. They are arranged vertically, with some stalks in the foreground being more prominent than others in the background. The lighting is soft, highlighting the natural colors and textures of the sugarcane.

Sugarcane Ethanol & U.S. Market

Meeting the RFS and the LCFS

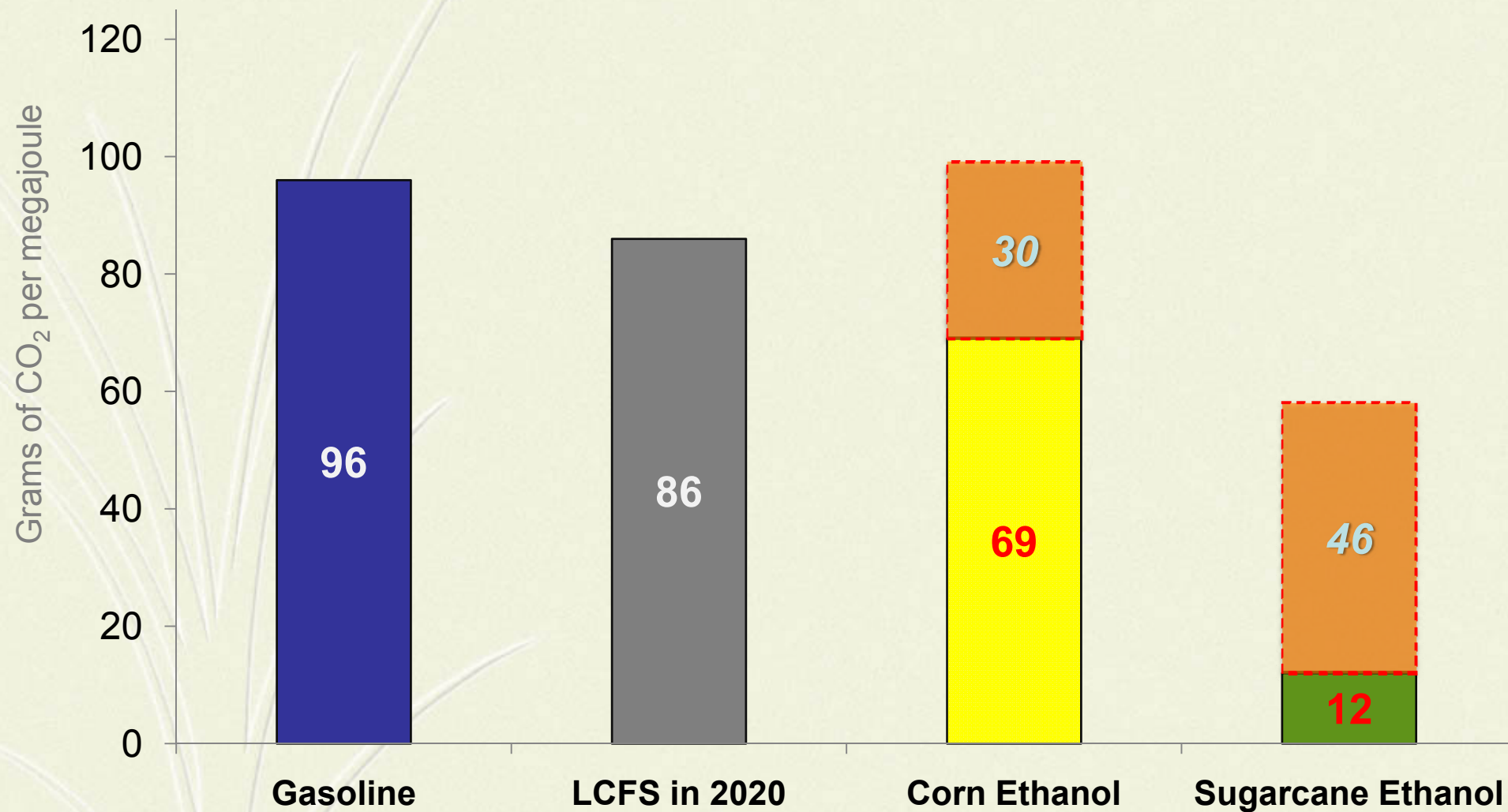
U.S. RENEWABLE FUELS STANDARD (RFS)

Sugarcane ethanol to meet “Advanced Biofuel” threshold



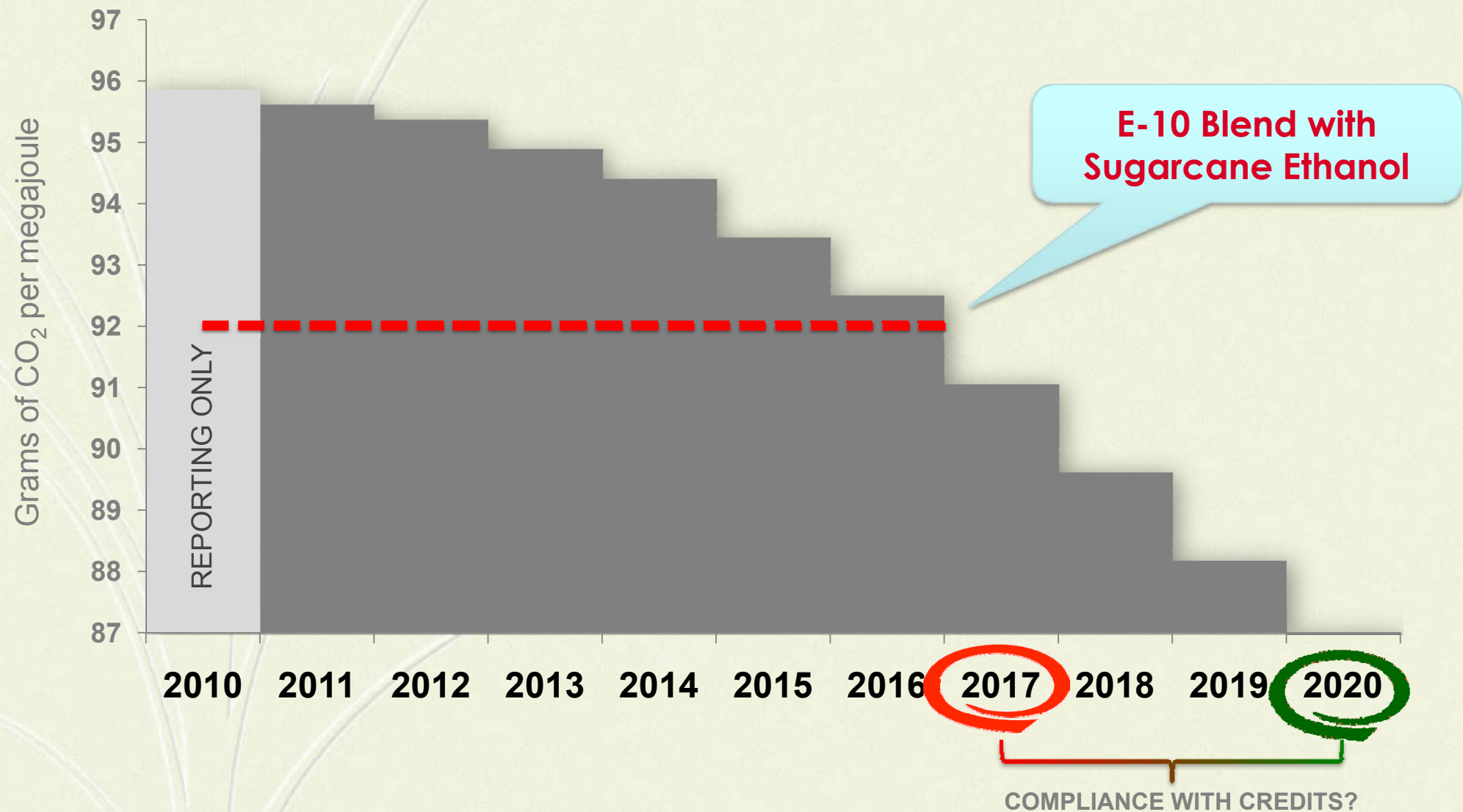
LCFS WITH “INDIRECT LAND USE” PENALTY

CARB's Modeling on ILUC greatly penalizes biofuels



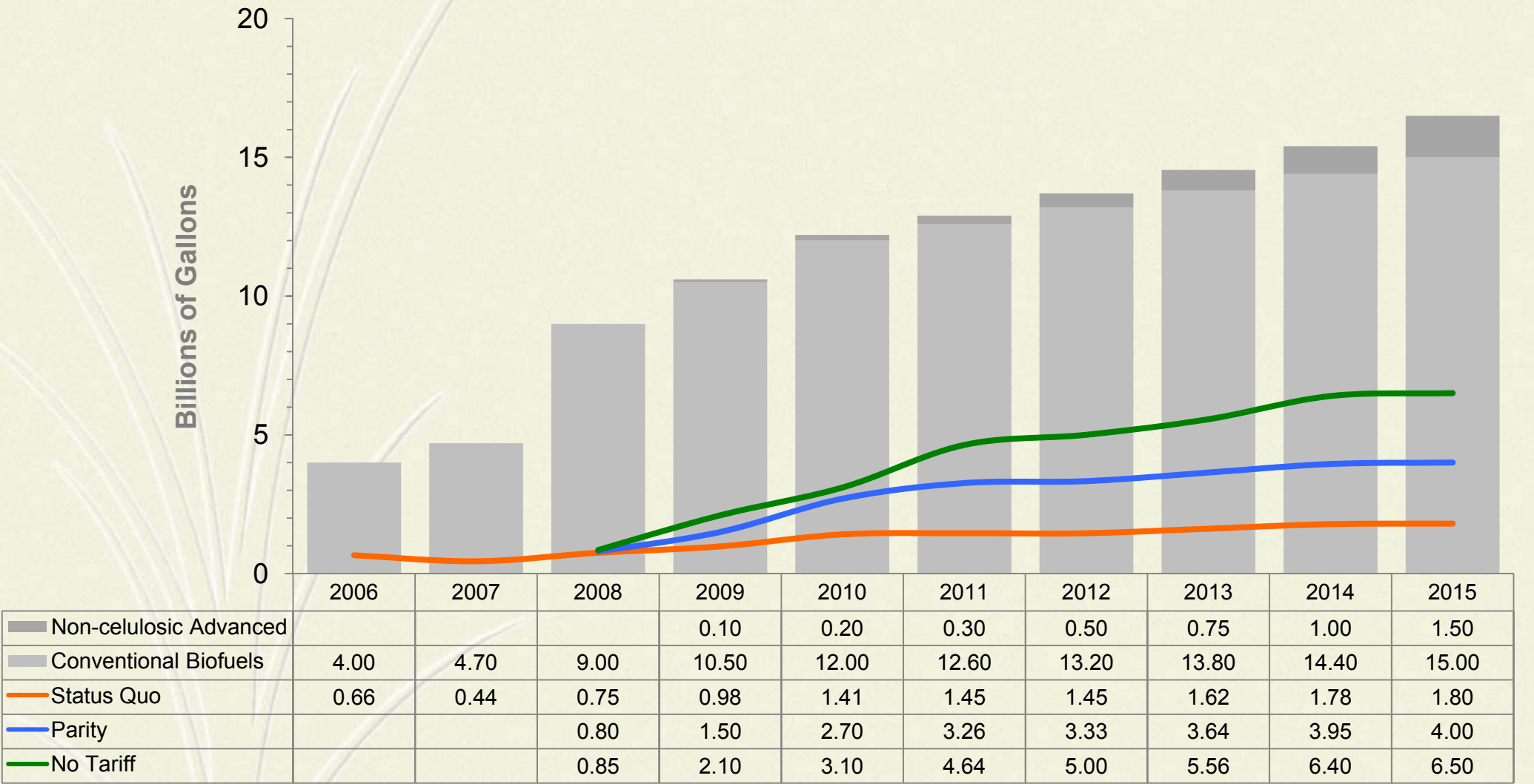
LCFS SIMULATION WITH SUGARCANE ETHANOL

Even with ILUC, 10% sugarcane ethanol blends meet LCFS through 2016



IMPACT ON IMPORTS BASED ON POLICY CHANGES

By 2015, Brazil could exports between 1.5 to 6.5 billion gallons



Thank You
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